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CLAIMS

We claim,

1. Electroprocessed fibrin.

2. The electroprocessed fibrin of Claim 1, in a matrix.

3. The electroprocessed fibrin matrix of Claim 2, further comprising cells.

4. The electroprocessed fibrin matrix of Claim 2, further comprising one or more substances.

5. The electroprocessed fibrin matrix of Claim 4, wherein the one or more substances is a growth factor, differentiation inducer, anti-oxidant, vitamin, hormone, nucleic acid, drug, peptide, nucleic acid, emollient, humectant, conditioner or cosmetic

6. An engineered tissue comprising the electroprocessed fibrin matrix of Claim 2 and cells.

7. The engineered tissue of Claim 6, further comprising one or more substances.

8. The engineered tissue of Claim 6, wherein the cells are stem cells or differentiated cells.

9. A method of delivering a substance to a desired location comprising; adding a substance to the electroprocessed fibrin of Claim 1; and, placing the electroprocessed fibrin containing the substance in the desired location.

10. A method of delivering a substance to a desired location comprising; adding a substance to the electroprocessed fibrin matrix of Claim 2; and, placing the electroprocessed fibrin matrix containing the substance in the desired location.

11. A method of treating a wound, comprising applying the electroprocessed fibrin of Claim 1 to the wound.

12. A method of treating a wound, comprising applying the electroprocessed fibrin matrix of Claim 2 to the wound.

13. A method of providing hemostasis, comprising applying the electroprocessed
5 fibrin of Claim 1 to a site of bleeding.

14. A method of providing hemostasis, comprising applying the electroprocessed fibrin matrix of Claim 2 to a site of bleeding.

10 15. A method of evaluating a biological response of a cell to a substance, comprising:
applying the substance to the electroprocessed fibrin matrix and cells of Claim 3; and,
evaluating the biological response of the cell.

15 16. The method of Claim 15, wherein the cell is a cancer cell.

17. A method of manufacturing the electroprocessed fibrin of Claim 1, comprising:
electrodepositing one or more electrically-charged solutions comprising fibrin or
molecules capable of forming fibrin onto a grounded target substrate under conditions
effective to electrodeposit fibrin or molecules capable of forming fibrin on said substrate to
20 form the electroprocessed fibrin.

18. A method of manufacturing the electroprocessed fibrin matrix of Claim 2,
comprising:
electrodepositing one or more electrically-charged solutions comprising fibrin or
25 molecules capable of forming fibrin onto a grounded target substrate under conditions
effective to electrodeposit fibrin or molecules capable of forming fibrin on said substrate to
form the electroprocessed fibrin matrix.

19. A method of manufacturing the engineered tissue of Claim 6, comprising:
30 electrodepositing one or more electrically-charged solutions comprising fibrin or
molecules capable of forming fibrin, and cells, onto a grounded target substrate under
conditions effective to deposit the electroprocessed fibrin or molecules capable of forming
fibrin and the cells onto the substrate.

20. A method of manufacturing the engineered tissue of Claim 6, comprising:

electrodepositing one or more electrically-charged solutions comprising fibrin or molecules capable of forming fibrin onto a grounded target substrate under conditions effective to deposit the electroprocessed fibrin or molecules capable of forming fibrin; and,

5 applying cells onto the substrate or into a stream of the electroprocessed fibrin or molecules capable of forming fibrin, wherein the stream is located between the grounded target substrate and the solutions.

21. An electroprocessed fibrin matrix.

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22. An engineered tissue comprising an electroprocessed fibrin matrix and cells.